

(12) **UK Patent Application** (19) **GB** (11) **2 327 107** (13) **A**

(43) Date of A Publication 13.01.1999

(21) Application No 9714136.0

(22) Date of Filing 07.07.1997

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(51) INT CL<sup>6</sup>  
F16B 31/02

(52) UK CL (Edition O )  
F2H HTD H13F5

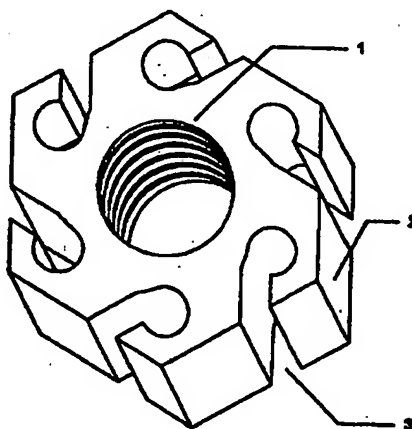
(56) Documents Cited  
GB 2026342 A

(58) Field of Search  
UK CL (Edition O ) F2H HTD  
INT CL<sup>6</sup> F16B 31/02  
ONLINE: WPI

(54) Abstract Title  
Torque limiting threaded fastener

(57) The fastener has tool engaging surfaces 2 which a tool may engage to tighten the fastener, each surface lying in a plane parallel with the fastener axis, and having a slot 3 in it to render the adjacent tool engaging surface 2 elastically deformable, in order to limit the maximum torque a tightening tool may apply to the fastener. Greater torque can be applied in the unfastening direction.

Figure 1

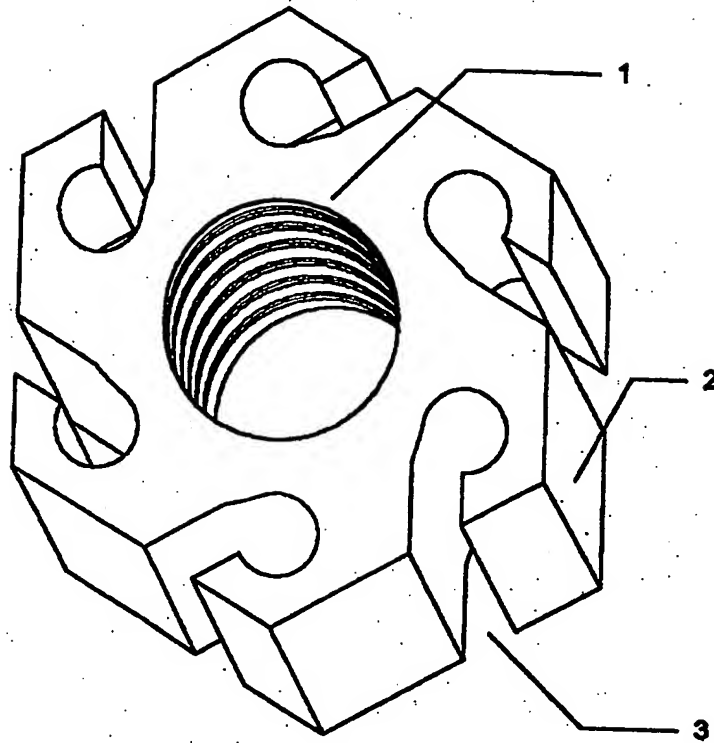


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Figure 1



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*Torque Limiting Threaded Fastener*

This invention relates to a torque regulating fastening.

Screw-threaded fasteners are the most common type of fastener in many engineering applications. The correct torque should be applied between the two sections of the fastener to ensure the integrity of the fastening.

The applied torque is traditionally regulated by the use of a torque wrench. This method is prone to human error, or misuse, leading to incorrect loading of the joints.

According to the present invention there is provided a threaded fastener, the thread of the fastener defining an axis about which the fastener may be rotated relative to a matching thread in order to tighten the fastener, comprising a plurality of adjacent tool engaging surfaces which a tool may engage to tighten the fastener, each surface lying generally in a plane parallel with the fastener axis, characterised in that one or more surfaces has a slot therein, the slot in one tool engaging surface defining a wall with an adjacent tool engaging surface, said wall being elastically deformable in order to limit the maximum torque a tightening tool may apply to the fastener.

A specific embodiment of the invention will now be described by way of an example with reference to the accompanying drawing in which;

Figure 1 shows in perspective, a nut, with an inner threaded surface 1 with the deformable tool engaging surfaces 2, and slots 3. The nut has a right-hand thread, so the slots are positioned to allow greater torque to be applied in the anti-clockwise direction, as greater torque is often necessary to dismantle such fasteners.

### ***Claims***

- 1) A threaded fastener, the thread of the fastener defining an axis about which the fastener may be rotated relative to a matching thread in order to tighten the fastener, comprising a plurality of adjacent tool engaging surfaces which a tool may engage to tighten the fastener, each surface lying generally in a plane parallel with the fastener axis, characterised in that one or more surfaces has a slot therein, the slot in one tool engaging surface defining a wall with an adjacent tool engaging surface, said wall being elastically deformable in order to limit the maximum torque a tightening tool may apply to the fastener.
- 2) A fastener substantially as described herein with reference to Fig. 1 of the accompanying drawing.